This concludes my present observations upon the development of these etiological organisms in and on different cultivating media. Not having a refrigerator, I have not compared their developments upon blood serum up to the present time.

Now these facts of some of the biological (or life) characteristics of these two germs show that, while two germs may look alike and grow alike, even in every particular, they may have one other attribute which in such cases can only be relied upon to detect one from the other.

That is their origin or, in other words, their disease-producing action.

It needs no argument from me for the practical farmer to know that the Southern Cattle Plague will not produce hog cholera in his hogs, or the latter disease the Southern Cattle Plague in his cattle.

ON SOME INTERESTING DERIVATIONS OF MINERAL NAMES.

BY F. M. ENDLICH.

(Continued from January Number.)

3. In addition to those mineral names which have undergone curious changes in the course of time, there are others which show interesting etymological relations, and yet have descended to us in but slightly changed form.

KERMESITE is derived from the Sansk. *krimi*, worm; Pers., *kirm* or *kirmis*, scarlet; Ar., *alkirmis;* Sp., *alkermes;* G. obs. *Kermes*, the "scarlet bug," cochineal insect. *Chermes*, the druggists' name for the substance, reached Spain from Arabia and thence travelled to Italy and Germany.[1]

The Sansk. form *krimi* has been retained in our Engl. *crimson*. It is also recognizable in the Lithuanian *kirminis*, worm. In It., Fr. and, later, Sp., the letter *a* was substituted for *i* and *e*, resulting in *carminio* and *carmine:* whence the mineral name *Carminite*.

[1] "Chermes vocant Arabes vnde nos chermesinum; sev et vermilium vsurparunt quidam, a vermiculis exemptis a radice pimpinellæ; coccum autem alio nomine dicitur scarlattum." (Cæsius, 1636.)

AZURITE.—The immediate derivation of the word is from N. L. *azurum*, sky-blue. Originally it comes from the Pers. *ladyuward*, or *lazuward*. In M. H. G. the adjective *lassuvar* appears, which has survived in the H. G. under the form of *Lasur* and *Kupferlasur*, copper-blue.

During the reign of Emperor Augustus, about 20 B.C., the L. word *azulus*—Lapis Lazuli—is met with. (M. Vitr. Pollio, the architect.) Early in the fourteenth century the N. L. *asureus* occurs, the initial *l* having disappeared in Latin. In the recent forms—It. *azzuro*, G. *azur*, Fr. *azur*, Engl. *azure*—the original *z* takes the place of the N. L. *s;* but in O. Engl. the latter can be found:—

> . . . . . "a broche of gold and assure,
> In which a ruby set was like an herte."
>
> —*Chaucer*, 1340-1400.

In the sixteenth century, however, the word had assumed its present construction:—

> . . . . . "that deckt the azure field."
>
> —*Spenser*, 1552-1599.

Lapis Lazuli owes its derivation to the same source, and, like the G. Lasur, has retained the initial *l*. "*Azurri ultramarinum materia ex lapis lazuli*" (Cæsius, 1636), shows the Latinization of the It. word.

MARCASITE is derived from the Ar. *markashitsa*, pebble.[1] The word was introduced in the thirteenth century, and was especially applied to minerals which showed bright, metal-like lustre (*Kiese* of the Germans). It was known to Alb. Magnus (1280) under the form of *marchasita*, and he characterized it as a mineral out of which no metal could be extracted by fire. Two kinds, mainly, were distinguished—the one yellow, shining like gold (*pyrite, etc.:* "*Pyrites sine dubio Arabib. marchasita est*" [Agricola, 1546]); the other, purer and more valuable, like silver (*marcasita argeneta* of the alchemists, *bismuth*).[2] One characteristic of the *marcasites* was

[1] Personal communication from the Arabic scholar, Rev. Wm. Wackernagel, D.D.

[2] "Marchasitarum species multe ac diuersæ sunt, ... nam alia aurea; alia argentea; alia cuprea. ab igne non liquefit; sed per se comburitur." (Leonardus, 1610.)

that they nearly all contained "brimstone" (Cotgrave).[1] According to Boyle (about 1670), "*Marchasitical stones*" abound in those portions of the earth where the temperature is excessively high. From various old writers, it would appear that the Arabic physician Avicenna (about 1020) had previously used the name. A rather fanciful derivation brings the word from the Ar. *marv, kyass, idd*—whitish, glistening flint (Kobell).

4. Among the mineral names there are some which have retained their original form with surprising regularity and have distributed it through many languages.

JASPER descends from Heb. *iashpheh*, Ar. *iasheb* or *iashef*, Pers. *iashm*, Gr. *ἰασπις*, L. *iaspis*, M. H. G. *jaspis*, O. Fr. *diaspre*, Fr. *iaspe*, O. Engl. *jaspe, jaspre*, Engl. *jasper*, H. G. and Sw. *jaspis*.

"His stone is jaspe."
—*Gower*, about 1360.

"The floore of jasp and emeraud was dight."
—*Spenser*, 1552–1599.

Ἰασπις is used by Plato (429 to 348 B.C.) and others after him; L. *iaspis*, by Virgil and Pliny, over eighteen hundred years ago.

SAPPHIRE is derived from Heb. *sappir*, Ar. *safir*. In Gr. the two *p's* of the Hebrew persisted, but the second was aspirated: *σαπφειρος*. M. H. G. used the word *saphir;* O. Engl. *saphire:*—

"Of rubies, saphires and of perles white."
—*Chaucer*, 1340–1400.

In It. the word has become *saffiro, zaffiro;* in Sp. *zafir*, Fr. *saphir*, Sw. *safir*. The H. G. and Engl. versions, however, retain the two *p's*, as in the Greek.

The It. *zaffiro* was perpetuated in obs. G. *zaffer*, used to designate blue cobalt-glass and blue colors; Engl. *zaffre* describes a purplish cobalt color.

Σαπφειρος was used by Dionysios Periegetes about nineteen hundred years ago, apparently in connection with the gem which now carries the name. Pliny also describes "sapphires," but evidently not the precious stone, as he states that it glitters with marks and specks of gold; this would apply to *Lapis Lazuli*.[2] Agricola (1546)

[1] Gessner (1565) claims the following: "*Pyrites recentiores marchasitam vocant, nostri corrupto nomine martistein.*"

[2] "*Sapphirus enim et aureis punctis collucet.*"—Pliny, Venice edition.

uses the correct orthography, "sapphirus;" as does Kentmann, in 1565.

ARSENIC.—The origin of this word is Gr. *ἀῤῥην*, or, as the second of two ς's frequently changes to a σ, *ἀρσην*=L. *mas*, strong, masculine. By transposition the word *ἀνηρ*=man, is formed from *ἀῤῥην*, the one ρ being dropped.

Homer uses *ἀνηρ*, 880 B.C., and, after him, all other writers. In Sophocles, however (497 to 406 B.C.), we still find *ἀρσην*, in the sense of strong; also in Aristophanes (412 B.C.).

"*κτυπος ἀρβην ποντου*" (noisy, powerful sea), Sophocles.

Theophrast writes *ἀῤῥενικον*, about 300 B. C.; Galenus (A. D. 131 to 202) employs *ἀρσενικον*, a poison. It is probable that the older forms were used to designate a variety of strong poisons, mineral or vegetable.

Curiously enough, the form *ἀρσην*, without the lengthening termination *ικον*, has survived in the G. *Arsen*, which signifies *metallic arsenic*. The Latinized form of *ἀρσενικον* or *ἀρσενικιον*, which latter was used by Aristotle (384 to 322 B.C.), is *arsenicum:* whence G. *Arsenik—i.e., arsenic oxide*—O. Engl. *arsenik* (Pettus, 1683) and Engl. *arsenic*.

DIAMOND.—Derived from contr. Gr. *α, privativum*, and *δαμαω*, I conquer=unconquerable. The name was originally given to hard steel and iron, and Hesiod uses it in this sense about 750 B.C. Since the days of Theophrast (about 300 B.C.) it has been applied to diamond. Gr., *ἀδαμας*.

The word enters Latin as *adamas*. "*Unde et nomen indomita quis Greca interpretationes accepit*" (Pliny). Pliny claims that when laid upon an anvil and struck with a hammer, the *adamas* will cause the latter to recoil and will remain unharmed, if, indeed, it fail to burst either sledge or anvil: hence its name. Only by sprinkling upon it the blood of a male goat can it be reduced to such a condition that it will no longer withstand the heaviest blows.[1]

In the middle of the sixteenth century the word was *Dyamant* in Germany; M. H. G., *Diemant;* H. G., *Demant* and *Diamant;* It. and Sp., *diamante;* Fr., *diamant;* O. Engl., *diamaunt;* Engl., *diamond.*

> "Haue harte as hard as diamaunt—
> Stedfast and naught pliaunt."
>
> —*Chaucer*, 1340–1400.

[1] "*Adamantem opum gaudium infragilem omni caeteri et inunctum sanguine hircino rumpente quœque.*"—Pliny, Venice edition, 1559.

The original form of Gr. ἀδαμας has been retained in the Engl. adjective *adamantine*=diamond-like, and in other words:—

> . . . . . "three folds were brass,
> Three iron, three of adamantine rock."
>
> —*Milton*, 1660.

MACLE is the name of a mineral which, when broken across its principal axis, shows a white cross or rhomboid spot enclosed within a dark matrix. The word is derived from L. *macula*, spot. G. *makel*, blemish; Engl. *maculate*, to spot, and *immaculate*, are from the same root, as is Fr. *macule*, spot. *Macula* is classical, and may have reached the Romans from Gr. μαχελον=inclusion, mark. *Pierres de macle* was applied to the mineral in 1751 by Robien. (Dana.) The meaning of Fr. *macle* is "*perforated rhomb*": whence its application to the mineral, which often shows such a figure on cross-section.

CARBUNCLE.—Pliny uses the name *carbunculus*, a diminutive of *carbo*=coal, in allusion to the resemblance of the gem to a glowing coal. In G. the *b* has changed to an *f*—*Karfunkel*—but remains *b* in Sw. *Karbunkel*. It is a coïncidence that the G. *funkeln* means glowing, scintillating. "*Carbunculi a similitudine ignium apellati.*" (Pliny.)

While the Greeks had a totally different name for the mineral, it is interesting to note that the origin of both the L. and Gr. words refer to the same peculiarity—*i.e.*, to some *glowing light*. The Gr. name is derived from λυχνευω=I shine brightly, I light up.

SMALTITE.—The Gothic form of *smalyan*, *smalteis*=melt, or smelt—was *smalzian* in M. H. G.; then *smelzan* (G. schmelzen); and these resulted in the M. L. *smaltum*=glass-flux. In the ninth century M. L. *smaltum* was used in the sense of smelted substance=*enamel*—in describing a "*crux pulcherrima gemmis et smaltis.*" (Anastasius.) It. *smalto* and G. *Smalte*, as well as M. L. *smaltum*, were finally applied to the blue cobalt glasses and cobalt colors, which became known about the middle of the sixteenth century. Since that time the word has retained its specific meaning. H. G. *Smalte* or *Schmalte*, Fr. *smalt*, Engl. *smalts*, Sw. *smalts*, all designate the color or substance known as cobalt-blue.

STANNITE is derived from L. *stannum*, originally *stagnum*. It is probable that the word is of Celtic origin; and the Irish *stan*, Welsh *ystaen*, may be regarded as direct descendants from the old root. Sueton and Pliny knew *stannum* as an alloy of tin and lead.

The old form of *stagnum* produced It. *stagno;* later, *stagnuolo;* whence obs. G. *Stagnol*, H. G. *Stanniol*=tin-foil. From the same source are Sp. *estano*, O. Fr. *estain*, Fr. *etain*.

In O. H. G., *tin* was *zin;* in A.-Sax., *tin*—possibly related to Sansk. *tshina*, lead; obs. G., *Zien* (1743); H. G., *Zinn;* Sw., *tenn;* D., *ten;* Engl., *tin*. The Engl. words *stannary*=tin-mines, and *stannous*, retain the Celtic (?) root. G. *Zinn* and *Zink* probably have a common origin, but the connection is obscure.

A derivation from A.-Sax. *tynan*=to shut, close, fasten, hence *solder*, has been suggested for tin, but seems untenable.

5. There are a number of mineral names which derive special interest from their application. The peculiarities ascribed to *Wolfram*, *Nickel* and *Cobalt* are productions of the German miner, whose fertile imagination saw more than mere matter-of-fact circumstances. Since the twelfth century mining has been prosecuted in Germany; and it can readily be imagined with what strange creatures the superstitious workman of those early days might people the underground domains.

WOLFRAMITE.—The word is of German origin, being a contraction of O. H. G. *wolfhraban*. The latter is formed by a combination of *wolf*, wolf, and *hraban*, raven. Among the ancient Germans, in fact, until the introduction of Christianity became general, the meeting with a wolf or a raven was considered a favorable omen under nearly all circumstances; and the most emphasized indication of coming good fortune consisted in meeting both of these animals. In the tin-mines of Germany and Bohemia, as well as in a number of silver-mines, the occurrence of *Wolframite* was an almost infallible index of the vicinity of good ore: hence the application of the name.

Wolfhraban contracts into *wolfhram* [*Wolffhram*, as late as 1565 (Fabricius)], and, by dropping the h, into *Wolfram*. *Wolf* was for many years a favorite baptismal name in Germany, and may be found to this day in some families of feudal descent. Wolf is derived from Goth. *vulfs* and A.-Sax. *vulf*, with the root of Goth. *vilwan*=L. *rapere*, to lay hold of, to tear.[1]

[1] *Wolframm* and *Wolffert* were used as late as the last century. The name is then explained as indicating that this mineral, when brought together with tin-ore in the furnace, wasted the tin—ate it up as a wolf

The Sansk. *karawa* is the root of Gr. *κοραξ*, L. *corvus*, It. *corvo*, Sp. *cuorvo*, Fr. *corbeau*, Engl. *crow*, G. *Krähe*, Sw. *Kraka*, D. *Kraye*, on the one hand, and, on the other, of A.-Sax. *cravan*, O. H. G. *hraban*, G. *Rabe*, Fr. *ravineux*, Engl. *raven*.

The derivation of Wolfram from *Wolf* and G. *Rham*=cream, is faulty. The Engl. name for G. *wolfram* is *tungsten*, der. Sw. *tungsten*, from *tung*, heavy, and *sten*, stone.

NICCOLITE, in this form of orthography, is derived from N. L. *niccolum*, the metallic element, formerly *nickelum* (latter part of eighteenth century). The Goth. *nickr* or *nickl*, A.-Sax. *nicr* or *nicor*, Icel. *nikr* (related to Icel. *hnickia*=to seize and carry off), was a demon who inhabited pools of water and drew down his victims with irresistible force until they were drowned. From the above is derived the G. *Nixe*, a female water-spirit, who was not always cruel, but sometimes gave her valuable services to unhappy lovers and others who sought her aid. The G. masculine *Nix* belongs to the same family, but was a morose, objectionable character. His name serves to this day in Germany to drive children away from water. From the same source we have obtained the appellation "*Nick*," commonly used as "*Old Nick*," now employed as a *nom de plume* for the chief of the infernal regions, although the original association of the name with water is hardly in keeping with the orthodox conception of this warmly-located ruler.

In O. H. G. *nickel* signifies a small horse, especially a vicious one; also a dwarf. The A.-Sax. *nag* is related to it. Locally, the idea of a dwarf or stunted animal of any kind was modified into the personification of a malicious, mischievous spirit. In this connection, the words Engl. *nagging* (from A.-Saxon) and G. *necken*, to tease, were used.

The German miners frequently found ores which looked very promising, but, upon being smelted, they produced no silver: on the contrary, they emitted foul and noxious odors. The most natural explanation, at that time, seemed to show that wicked, envious spirits had changed the ores, or even infested them: whereupon the terms *nickel* and *kobold* were freely applied to such disturbing ele-

would. "Er (wolfram) betreugt die Berglente gar sehr, weil er mit dem Zinnstein vor dem Wasser stehet und im Schmeltzen das Zinn raubet." (Bergwerck's *Lexicon*, 1743.) *Wolfram* was also used for some arsenical ores which are objectionable in the furnace. (*Mineral. Belustigungen*, 1768.)

ments. An association of "*nickel*" with the name of any other metal expressed the old Germanic idea of a "*changeling*" (G. *Wechseling*, from O. H. G. *wihseline*), derived from the fancied changing of children by elves and fairies. Thus, *copper-nickel* would be the name of a mineral resembling copper-ore, yet containing none of the latter metal: the meaning would be equivalent to "false copper."

In this way the names of *nickel* and *kobold* became attached to certain minerals which resembled rich ores, but yielded neither silver nor copper. To this day the word nickel is applied to persons in certain parts of Germany when a giddy, or even vicious (generally female), character is to be described.

An ore known as *Kupfernickel* in Germany, *coppar-nickel* in Sweden, yielded a grey, hard metal to the Swedish mineralogist Cronstedt, in 1754, which he named *nickel*. He took the name from the ore. Promptly discerning that the metal he had obtained bore no relation to the first part of its name, copper, he selected the second. Thus the word which had first been applied by the miners was eventually attached to the metal which had caused them so much worriment.

COBALTITE is immediately derived from N. L. *cobaltum*, the metallic element. Agricola says (1546): "*Est præterea aliud genus ferrei quasi interdum coloris, cobaltum nostri vocant.*" In O. H. G. the word is *Kobolt*, sometimes *Kobalt*; in the sixteenth century, *Kobelt* and *cobelt*, or *cobel*; H. G., *Kobalt*; Sw., *kobolt*. It is a descendant of the Gr. κοβαλος, L. *cobalus*, whereby a familiar spirit was designated. This spirit was not necessarily vicious or ill-natured, nor prone to do harm, but he was full of mischief and fond of practical jokes. Aristophanes (about 406 B.C.) characterizes a κοβαλος as a satyr, a roguish fellow, in the following of Bacchus. The Fr. *gobelin* and Engl. *goblin* are derived from the same root. An amusing explanation of their etymology assigns Fr. *gober*= gobble, as their root and that of kobold, because nurses are apt to tell children tales of spirits that will "gobble" them as a punishment for disobedience and other childish peccadillos. (Minshew.)

In Germany the *Kobold* was rather useful than otherwise, unless he was crossed in anything.[1] Of a particularly industrious servant

[1] Of the "Berg-Kobelt" (mountain spirit) the following is said: "Es lässt sich in allerhand Figur sehen, bissweilen als ein kleines Kind, auch wohl als ein alter Bergmann, nur muss ihnen nichts in Weg gele-

it was said: "*Sie hat einen Kobold*" (a kobold is with her); and it was believed that this amiable spirit assisted her in her daily work. The underground association with nickels, however, must have tended to corrupt the kobold's kindly disposition and to sharpen his enjoyment of practical jokes, which he carried even to the point of cruelty. He disturbed and hid the tools of the miners, interfered with their timbering, changed their ore, and played a thousand distressing pranks. When the workmen proceeded to smelt silver from their ores, he caused the latter to emit mal-odorous, choking fumes in such dense masses as to injure the smelters. "*Kobelt'sche Ertze sind wilde und strenge Ertze.*" (1743.) The heavy, white smoke spread itself upon the grass of the fields and killed the cattle. At last the kobold became identified with this fuming, smoking class of arsenical ores, so that Mathesius, in 1562, describes cobalt as a "poisonous and injurious metal." Linnæus mentions arsenic (the source of the fumes) as Kobolt, and to this day the "*Scherbenkobalt*" of German miners is but a variety of metallic arsenic.

The metal cobalt was not extracted from its ores until Brandt, in 1733, produced it in a somewhat impure state. Its blue glasses and slags became known about the middle of the sixteenth century by accident: a workman secretly threw a piece of the evil-minded "kobold" into his employer's glass-furnace with the intention of causing the spirit to work dire mischief: the most beautiful blue glass resulted.

BASANITE is derived from Gr. *βασανος*=touchstone, probestone. It is used by Pindar in this sense as early as about 490 B.C. The word is formed from *βασανιζω*, possibly produced by contr. Gr. *βασις*, foundation, bottom, and *νιζω*, I wash, clean—conveying the idea of "*sifting to the bottom.*"

The Latinized form, *basanites*, was indifferently applied to black quartz, the true probestone, and to *basalt*, the eruptive product. It has been claimed that a "typographical error" on the part of some early copyist bore the responsibility of having produced the latter word. The transition from *basanites* to *basaltites* seems easy. Pliny (A.D. 70) uses *basaltes*, a marble from Ethiopia, and speaks of the name as having been used before his time.

get werden, so lässt es die Berg-Arbeiter auch zu frieden." (*18th Century.*)

It is known to be a fact that *basanites* was applied to true *basalt.* Agricola (1546) uses the word for an undoubted basalt; Gessner (1565) derives it from Gr. *βασανω*, and applies it to true basalt;[1] Kentmann (1565) calls it "black marble," and uses the word in the same way;[2] Basanite is described as "black stone" by Leonardus (1610), and he speaks of "*Bazanites sive Basaltem lapis;*" Cæsius quotes it as "*iron-colored*" marble, in 1636; in 1743 (Bergwerck's *Lexicon*) it was regarded as a dark-grey marble ("*schwarzgrauer Marmor*"); within the last fifty years *Basant* and *Basalt* have been used synonymously in various German publications. This confusion of the two terms may bear out the idea of an early "typographical error."

CELADONITE is formed from the Fr. *celadon*=sea-green. The origin of this word, in its quoted meaning, seems to be a curious one. Gr. *Κελαδων* first occurs in the "Iliad" (880 B.C.) as the name of a river; subsequently it is repeatedly used in the same way by Meleagros, Strabo a. o.; Ovid incidentally applied it, in the form of *Celadon*, as the names of two men, one from the mouth of the Nile, the other from the mountains of Thessaly. The word is derived from Gr. *κελαδος*=rushing noise, like that of rushing water.

In 1610 (1616?) a French novelist, D'Urfée, wrote a pastoral romance, "*Astrée,*" in which he gave the name of *Celadon*, borrowed from Ovid, to an inexperienced, insipid lover: whence the idea of greenness (Dana). Spanish (?), French and German all contain the noun *Celadon* or *Seladon*=verdant lover (G. *blöder Schäfer*), and the adjective=sea-green. In Engl. the latter has been amplified to *celandine.* In the acceptation of verdant lover, the word seems to have come from the Spanish rather than from the French, but it is difficult to arrive at its meaning for any given date. There was an ancient river *Celadon* in Spain, whence the word may have been introduced into that language. Thompson uses the name, in 1727, in "The Seasons," for Amelia's lover.

Dana gives the derivation from Gr. *κελαδων*=burning; others from *χελιδονιον*=swallow-wort. But neither seems to apply.

AMETHYST is composed of Gr. *α privativum* and *μεθυω*, I am

[1] "*His omnibus consideratis non immerito Misenus βαβανω, vel Basaltes Misenus dici potest,* EIN MEISSNISCHER PROBIRSTEIN."

[2] "*Marmor nigra Stolpense, ferreo colore et duricie, hoc Bisalten nominat Agricola; nos Basalten.*

drunk: hence it signifies a safeguard or amulet against inebriety. Some of the ancients claim that it prevents the latter, but Plutarch denies it. Among its numerous wearers of the present day, some may be able to judge of its supposed merit in this direction.

"Magorum vantitas resistere ebrietati eas promittit et nide appellatas."—*Pliny.*

The amethyst is mentioned by Plato (400 B.C.) and Asclepiades (280 B.C.) as a gem.

6. A few mineral names have reached us from the Anglo-Saxon with hardly a change and without having lost their characteristic brevity:—

WAD is a bog-ore of manganese. The word takes its origin from A.-Sax. *vaed*, bunches, derived from the Goth. *vidan*=to bind (in bunches). We further have: O. H. G. *wat*, *wetan*, *gawati*; M. H. G. *wat*; Scandinavian *vad*; Sw. *vadd*—related to G. *Watte* (cotton-), batting, and to Engl. *weeds*.

FLINT has been referred to Gr. πλινθος=tile or brick, and to Gr. πλητταυν=to strike, in allusion to striking fire; but these derivations seem very problematical. The word in A.-Sax. was *flint*; M. H. G., *vlins*; locally (Middle German), *vlint*; O. Engl., *flent*; Sw., *flinta*.

"And out of flent sprang flod, that folke and bestes dron ken."
—*Langland*, 1362.

French *flin* means polishing material, for which powdered flint may be used. The word *flent* or *flint* may be related to the root of *flensing*=to skin, to flay (Icel., *flisia*), as in the earliest times flint, particularly, and other stone implements were used for skinning animals.

The form *flint* was assumed long ago:—

"Had ben my heart of flint, it must haue melted."
—*Surrey*, about 1520.

The H. G. *Flinte*=(shot-), gun, is the same word applied to fire-arms since about 1640, when they were first supplied with chips of flint or chalcedony for the purpose of striking fire and igniting the powder.

7. Matters of historical interest are also alluded to in mineral

names, but, usually, refer to some scientific work rather than to political occurrences.

TANTALITE is a name given by the Swedish mineralogist Ekeberg to a certain mineral in 1802. He thereby expresses the difficulties and tantalizing perplexities with which he was beset during the progress of his analysis of the substance. It is named after *Tantalos*, the well-remembered mortal favorite of the Olympian deities, who so far presumed upon his privileges as to place before them the remains of his own son, disguised as a tempting dish. For this sacrilege he was condemned to suffer hunger and thirst in the nether world, though surrounded by luscious fruits, viands and liquids of all kinds, which promptly receded from his grasp whenever he reached for them.

Certainly, the name forcibly expresses the feelings of the baffled chemist, while at the same time it affords a glimpse of the status of analytical science in 1802.

XENOTIMITE.—In 1832 the famous French mineralogist Beudant named a mineral Xenotime, apparently from contr. Gr. ξενος, a stranger, and τιμη, honor. He explained, however, that this name was derived from contr. Gr. κενος, empty, vain, and τιμη, honor, and added that he intended it to recall the fact that the Swedish chemist and mineralogist Berzelius vainly thought to have found in this mineral the metal *Thorium*, which he had named (1815) before its existence was really established (1828). The honor which Berzelius indirectly claimed in the supposed discovery of a new element was an empty one in this instance.[1]

As Dana appropriately remarks (*System Mineralogy*, p. 529), "there is a sneer at the great Swedish chemist in the name which should have occasioned its immediate rejection." If the word were correctly formed, so as to express what Beudant intended that it should, it would have been *Cenotime* or *Cenotimite*: hence the name, as he writes it, fails to convey the implied meaning. Dana has accepted the name *Xenotime*, as he explains, because it "may be

[1] "Conformément aux principes que nous avons adoptés, nous luis avons imposé un nom particulier, qui rappellera que le phosphate d'Yttria a été pris pour l'oxide d'un métal nouveau auquel on avait donné le nom de *Thorium*, apliqué aujour d'hui au métal découvert dans la Thorite." —*Traite de Mineral.* 1832.

regarded as referring to the fact that the crystals are small, rare, not showy, and were long unnoticed."

YENITE is a name given by the French scientist Le Lievre, in 1807, to a mineral found on the Island of Elba. The name was bestowed in commemoration of the battle of Jena, October 14th, 1806, in which Bonaparte almost annihilated the Prussian army.

Apart from the fact that the name should have been formed *Jenite* or *Jenaite*, the ungenerous spirit which prompted an introduction of political feelings into scientific matters was repudiated by Le Lievre's own countrymen, as well as by the displeased Germans: the name *Ilvaite*—from the L. name of Elba—given to the mineral by Steffens in 1811, was substituted for *Yenite*.

The hereditary rivalry between the French and German nations has found expression, within the last few years, in the naming of two newly-discovered elements: *Gallium* was named by a patriotic Frenchman, only to be followed by *Germanium* a short time after.

8. Naming minerals after localities is by no means an innovation, as the following examples will show:—

MAGNETITE.—About 400 B.C. the Greek term *λιθος Ἡραχλεια* was used by Plato to designate a mineral with magnetic power. Pliny quotes it as *Heraclion*. Probably it was named after Hercules (Herakles) in intimation of its strength (*lapis Herculeus* was used in the sixteenth century), rather than after the town of Heraclea in Lydia. Pliny claims that it was named after a shepherd, its discoverer.[1]

Later on, Dioscorides a. o. use the term *λιθος μαγνης*, describing a magnetic stone supposed to have come from *Magnesia*, a portion of Thessaly. *λιθος μαγνητης*, used by Dioscorides also, referred to soapstone or talc, so far as can be determined. (Dana and Pape.) The name reached Germany in the period of M. H. G. and took the form of *aget-stein* or *agt-stein*. It was applied rather indiscriminately, and apparently to amber by preference. The latter attracts small bits of paper and wool, etc., after having been subjected to friction.

[1] "Sideritin ab hoc alio nomine apellant, quidam Heracleon. Magnes apellatus ab inventore (autor est Nicander [about 150 B.C.]) in Ida repertus est." . . . "Invenisse autem fertur, clavis crepidarum et baculi cuspide hærentibus, cum armenta pasceret."

The Gr. *μαγνης* entered L. as *magnes*, thence passing into It. *magnete*, Sp. *magnetico*, Fr. *magnetique*, M. H. G. *magnes*, H. G. *magnet*, Sw. *magnet*, O. Engl. *magnes*, Engl. *magnet*.

> " On th' other syde an hidious rock is pight
> Of mightie magnes-stone."
>
> —*Spenser*, 1552-1559.

COPPER was obtained by the ancient Greeks from the Island of Cyprus. Homer speaks of it (880 B.C.) as *χαλκος*; and qualifies this term, which meant ore, bronze, metal or copper, by giving its color as *ἐρυθρος*=red. Later on the same name was applied to *iron*, and then the distinction *χαλκος Κυπριος*=Cyprian metal, was made, in order to avoid confusion. In L. the word *aes* is equivalent to the Gr. *χαλκος*; and the copper became known as *aes Cyprium*. (Pliny a. o.) By the end of the third century the word *aes* was dropped, and the descriptive adjective *Cyprium* evolved into the noun *cuprum*.

The alchemists gave copper the name and sign of *Venus*. *Κυπρις* is an old poetical name for Venus, used by Euripides (450 B.C.) a. o., and the Island of Cyprus was devoted to her cult.

From L. *aes Cyprium* and M. L. *cuprum* have sprung: A.-Sax. *cyper*, O. H. G. *Kuphar*, H. G. *Kupfer*, O. Fr. *cuyvre*. Fr. *cuivre*, Sp. *cobre*, Sw. *coppar*, D. *koper*, O. Engl. *coper*, Engl. *copper*.

> " Lyke as to a true syluer grote a false coper grote," etc.
>
> —*Sir T. More*, 1478 to 1535.

TURQUOIS is really an adjective=*turkish* (from Turkey), and is taken directly from the French. In Middle German the word was *turggis*; M. H. G., *turkoys*. In the middle of the sixteenth century this changed to *Türckis* and *Türkis*. The Sw. is *turkos*. N. L. forms are: *Turcois, turcosa, turchesia*; It., *turchesa, turchina*; Sp., *turquesa*; O. Fr., *turquoise*; O. Engl., *turques*; Engl., *turquois*.

> "I bequeth a ryng of gold, sette w^t^ a turques, a dyamaunt, and a ruby." —*Fabyan*, 1512.

9. There are a few names, familiar to almost every one, that have an exotic sound, foreign to that of the languages which have principally furnished the material for mineralogical nomenclature:—

TOURMALINE—also known as *Turpelin* during the last century, is derived from the Cingalese *turamali*.

BORAX, a universally-known word, comes from the Ar. *buraq.*

CORUNDUM (Fr. *corindon*) owes its form to the Hindostan *Kurand.*

KAOLIN, the well-known porcelain-earth, was first mainly obtained from *Kau-Ling,* in China: whence its name.

A MONTH IN PALÁWAN.

BY J. B. STEERE.

THE island of Paláwan, or, as it is more frequently called by the Spaniards, Paráqua, is classed as one of the Philippine group. It runs from the northeast to the southwest, and is something over 250 miles long, while it hardly averages 20 miles in width. It fronts the China sea on the west, and the Sulu or Mindora sea on the east. It is distantly connected on the north and east with the other Philippines—through the Cuyos with Panay, and through the Calamines with Mindoro and Luzon; but it is much more closely connected on the south by Balabac and other small islands with Borneo. It is mountainous and heavily timbered, and but thinly inhabited, the native population being estimated by the Spaniards at ten or twelve thousand. The native people are of at least two races, Malays and Negritos. The southern end is chiefly inhabited by people of Malay race, to whom the Spaniards give the name of their hereditary African enemies, Moros or Moors. They are Mahometan in religion, and this, with the presence of their priests, has kept them more or less united, and perhaps a little in advance of the northern tribes. The northern part is inhabited by savages of Malay race, living in small, scattered tribes, and of Negritos—wooly-haired black people—living in much the same state, and apparently amalgamating with the Malays. The Spanish have had some small settlements of Christian Indians from Luzon, at the north, for some time, and for fifteen or twenty years have been forming a convict town at Puerto Princesa, on the east coast, and near the middle of the island. This now numbers some twelve or fifteen hundred inhabitants, mostly criminals shipped there from other parts of the colony. This is the capital and residence of the Spanish governor and other officers. Within a few years the Spanish have also formed small military settlements on the west coast.